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Figure 1. Lexical structure tree of the symbol strings of

the Zhu-Yin (BoPoMoFo) phonetic system.

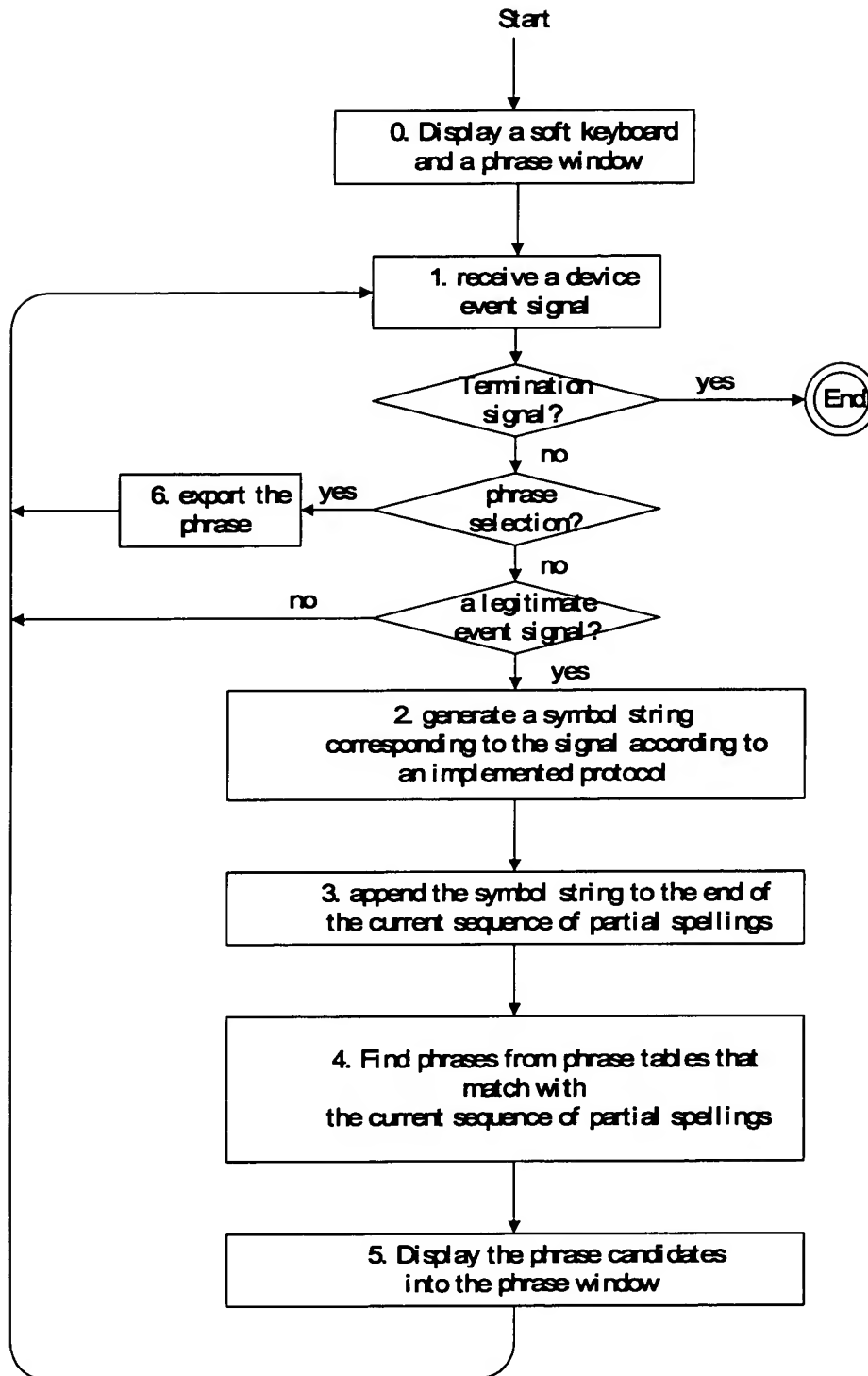Figure 2. Lexical structure tree of the symbol strings of the Pin-Yin phonetic system.

5

Start

0. Display a soft keyboard
and a phrase window

1. receive a device
event signal

Termination
signal? — yes → End

no

phrase
selection? — yes → 6. export the
phrase

no

a legitimate
event signal? — no →

yes

2. generate a symbol string
corresponding to the signal according to
an implemented protocol

3. append the symbol string to the end of
the current sequence of partial spellings

4. Find phrases from phrase tables that
match with
the current sequence of partial spellings

5. Display the phrase candidates
into the phrase window

Figure 3. Flow chart of the program that supports

the browsing-base Chinese input method.

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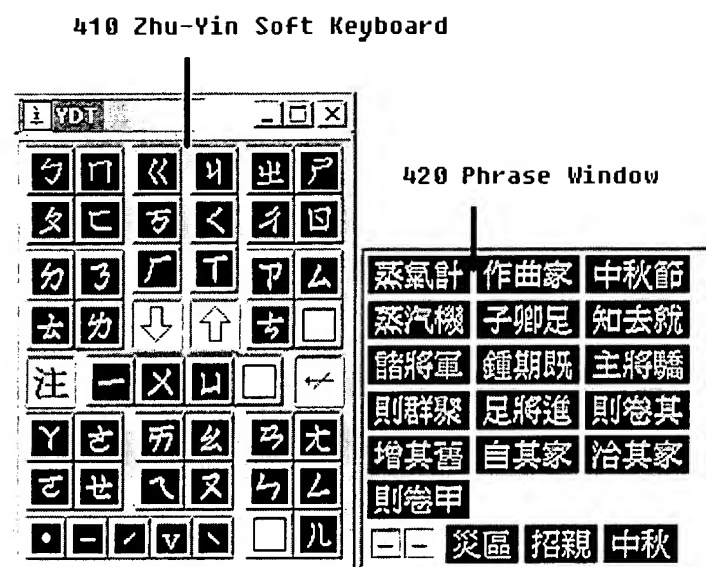
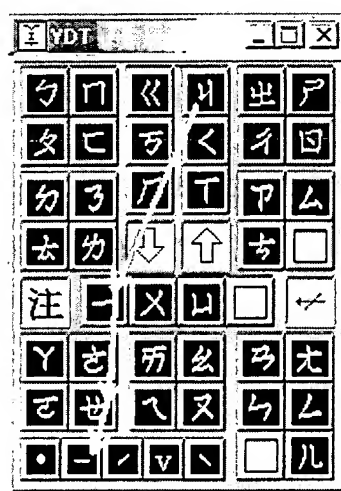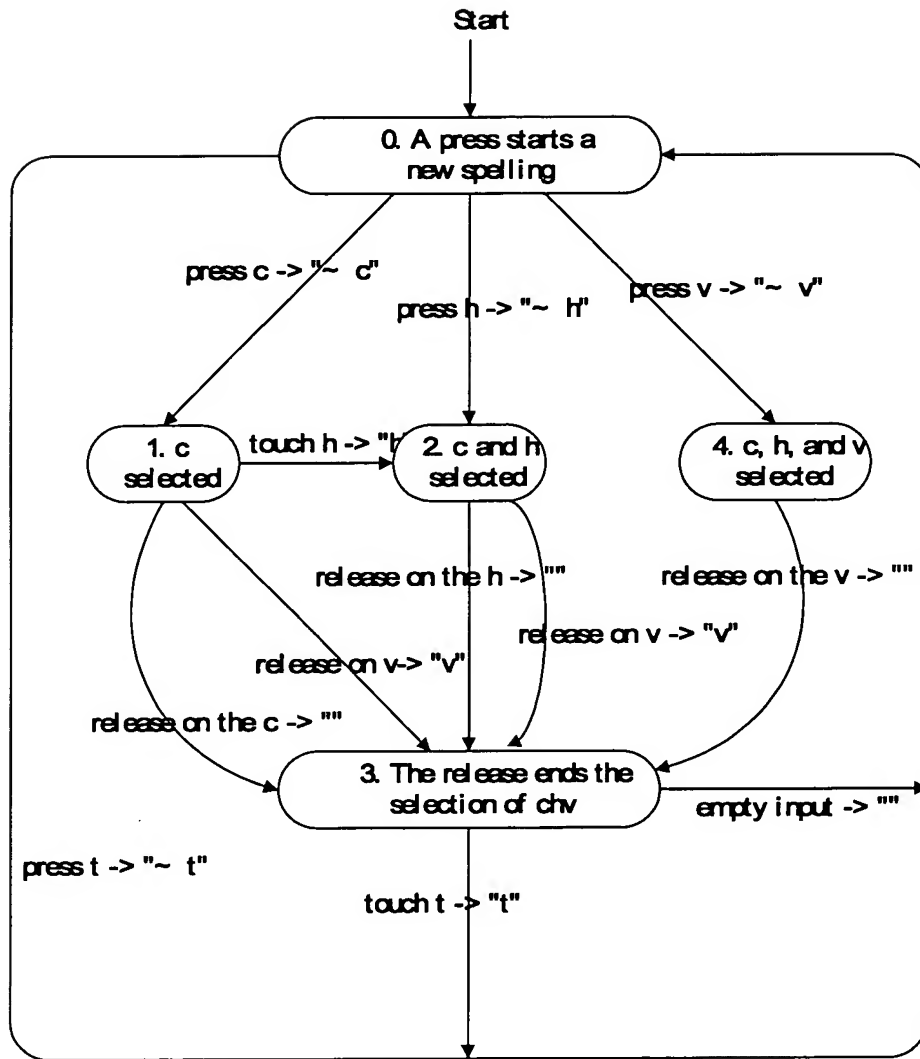Figure 4. System components (Zhu-Yin phonetic system).

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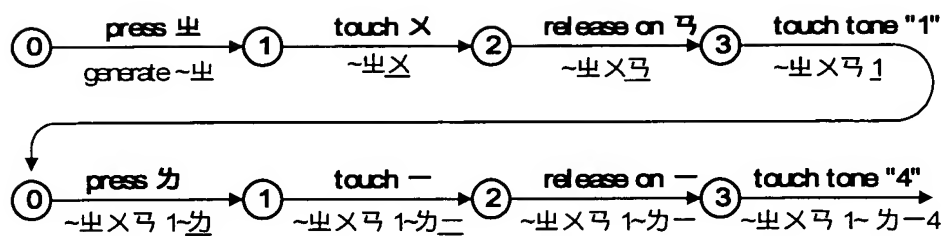
Figure 5. Press-Touch-Release-Touch (PTRT) operation for "ㄐ ㄧ ㄝ ㄧ"

10   on the Zhu-Yin Keyboard.

34

Start

0. A press starts a new spelling

press c -> "~ c"

press h -> "~ h"

press v -> "~ v"

1. c selected

touch h -> "h"

2. c and h selected

4. c, h, and v selected

release on the h -> ""

release on the v -> ""

release on v -> "v"

release on v -> "v"

release on the c -> ""

3. The release ends the selection of chv

empty input -> ""

press t -> "~ t"

touch t -> "t"

5

Figure 6. State transition diagram of the

automatic partial Zhu-Yin spelling separation protocol.

Figure 7. Generation of the sequence of the
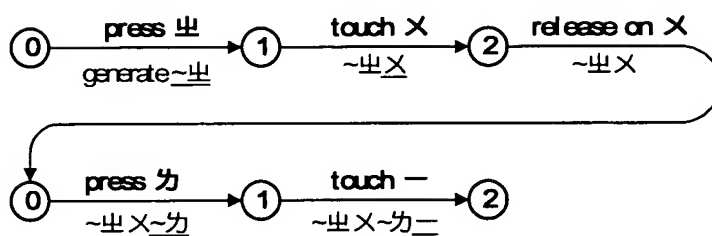
full Zhu-Yin Spellings "~ㄓㄨㄢ1~ㄌㄧ4" of "專利".

Figure 8. Generation of the sequence of the

partial Zhu-Yin Spellings "~ㄓㄨ~ㄌㄧ" of "專利".

910 Pin-Yin Initial keyboard

920 phrase Window
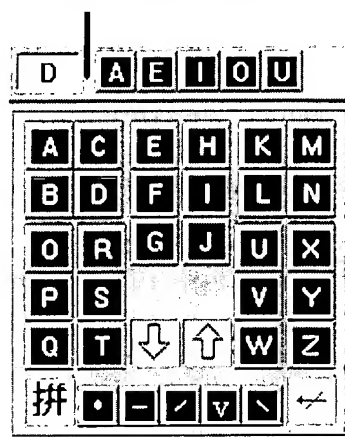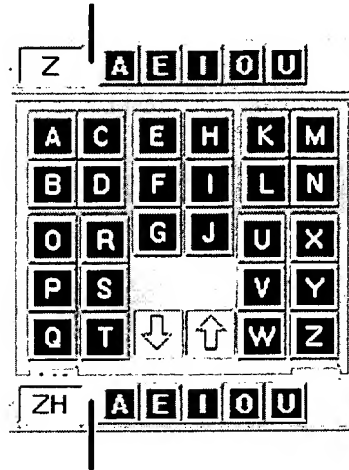
Figure 9. System components (Pin-Yin phonetic system).

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1010 The next substring panel of "D"

Figure 10. The next substring panel of "D".

10

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1110 The first next substring panel of "Z"

Figure 11. The next substring panels of "Z".
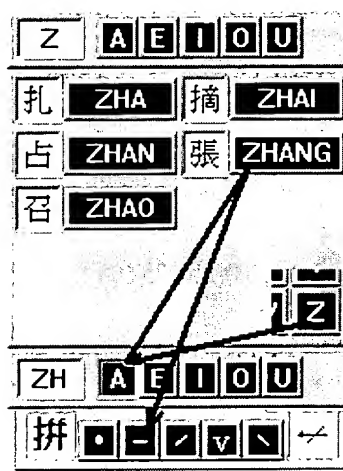
(Pin-Yin phonetic system)

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Figure 12. Press-Touch-Release-Touch operation for "ZHANG1"
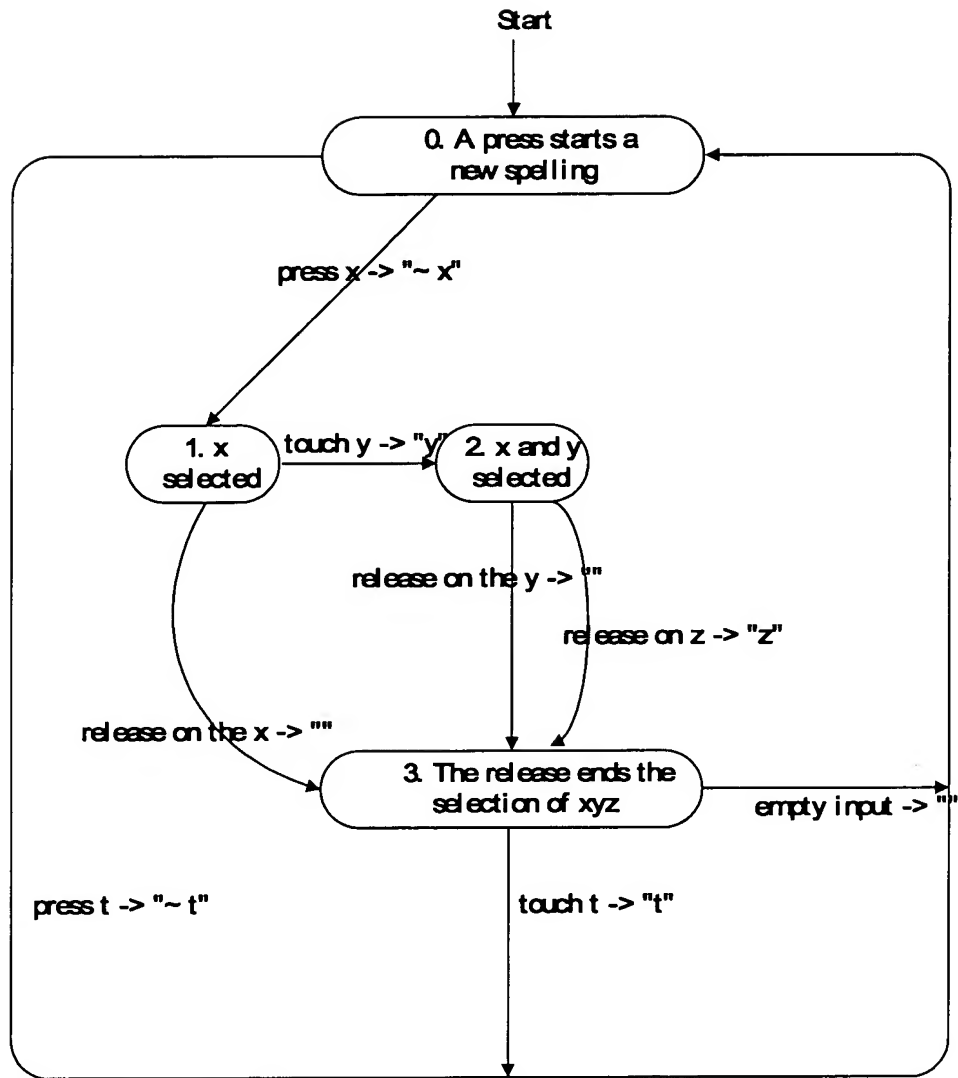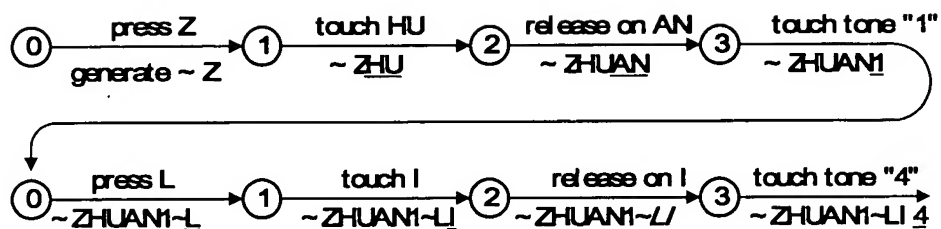
on the Pin-Yin keyboard.

Start

0. A press starts a
new spelling

press x -> "~ x"

1. x
selected

touch y -> "y"

2. x and y
selected

release on the y -> ""

release on z -> "z"

release on the x -> ""

3. The release ends the
selection of xyz

empty input -> ""

press t -> "~ t"

touch t -> "t"

Figure 13. State transition diagram of the

automatic partial Pin-Yin spelling separation protocol.

5

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Figure 14. Generation of the sequence of the

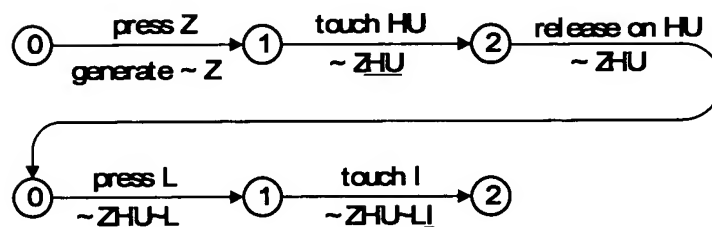full Pin-Yin Spellings "~ZHUAN1 ~ LI4" of "專利".

Figure 15. Generation of the sequence of the

partial Pin-Yin Spellings "~ZHU ~ LI" of "專利".